

WHAT IS CLAIMED IS:

1. An ion generator comprising:

a casing having an intake port and an exhaust port;

an ionization electrode contained in said casing

5 and including a first plate-like pole having a plurality
of pointed ends at least on a part of its edge, and a
second pole opposing a flat surface of the first pole;
and

a high-voltage generator for applying a high voltage

10 to said ionization electrode.

2. The ion generator as claimed in Claim 1, wherein
said second pole has a discharge surface
three-dimensionally curved into a convex surface.

3. The ion generator as claimed in Claim 2, wherein
15 said first pole comprises a star electrode whereas said
second pole has a spheric discharge surface.

4. The ion generator as claimed in Claim 1, wherein
said second pole comprises a flat plate inclined at a
predetermined angle relative to the flat surface of said
20 first pole.

5. An ion generator comprising:

a casing having an intake port and an exhaust port;

an ionization electrode contained in said casing

and including a first plate-like pole having a plurality
25 of sawtooth-like pointed ends arranged linearly, and a

second pole having a discharge surface defined by a cylinder or a part thereof and its generatrix extended in parallel with the pointed ends of the first pole; and a high-voltage generator for applying a high voltage 5 to said ionization electrode.

6. The ion generator as claimed in Claim 5, wherein said first poles are disposed at plural places arranged peripherally of said second pole as presenting their respective flat surfaces to a peripheral surface of the 10 second pole.

7. The ion generator as claimed in Claim 5, wherein said first pole is formed with plural lines of pointed ends whereas said second pole is disposed in correspondence to each of the lines of pointed ends.

15 8. The ion generator as claimed in Claim 1 or 5, wherein said first pole is formed from tungsten.

9. The ion generator as claimed in Claim 1 or 5, which is provided in an air charging system for supplying air to an internal combustion engine.

20 10. The ion generator as claimed in Claim 1 or 5, wherein said intake port is provided with a dust filter whereas said exhaust port is provided with a silocco fan for discharging ionized air.

11. The ion generator as claimed in Claim 1 or 5, wherein 25 said intake port is provided with a dust filter whereas

said exhaust port is provided with an air pump for discharging ionized air.

12. The ion generator as claimed in Claim 1 or 5, further comprising a solar panel for converting the radiation 5 energy of the solar light to an electrical energy, and a power source section comprising a storage battery for storing the electrical energy.